

Remarks

Request for Reconsideration

Applicants have carefully considered the matters raised by the Examiner in the outstanding Office Action but remain of the opinion that patentable subject matter is present. Applicants respectfully request reconsideration of the Examiner's position based on the amendment made to Claim 1 and the following remarks.

Information Disclosure Statement

The Examiner points out that the listing of references in the Search Report is not considered to be an information disclosure statement (IDS). An SB08A form citing the references and required copies of listed prior art is attached hereto. The fee associated with the IDS is also paid concurrently, herewith.

Drawing Objections

Applicants acknowledge the Notice of Draftsperson's Patent Drawing Review and attach hereto replacement sheets which are deemed to respond to the objections made by the Examiner in the Notice.

Claims Status and Amendment

Claims 1-10 are pending in this Application.

Claim 1 has been amended to read "a locking **and** rotationally fixed manner". Such an Amendment is deemed to respond to the Section 112, second paragraph, rejection. No new matter was added by way of this amendment as the language may be found in paragraphs 0010 and 0012 of the Application.

It is noted that claims 3, 4 and 9 were indicated as allowable if rewritten to overcome the rejection under 35 U.S.C. §112, second paragraph, and to include all the limitations of the base claim and any intervening claim. Applicants thank the Examiner for

indication that claims 3, 4, and 9 would be allowable, but at this time traverse the anticipatory rejection of the base claim.

The Invention

The invention is a bearing assembly with at least one first bearing as an axially free radial support and at least one second bearing as a radially free axial support. The bearings having a common axis of rotation and at least a first bearing ring of the first bearing and at least a second bearing ring of the second bearing, which are rotationally fixed in relation to the bearing seat. The second bearing ring is coupled with the first bearing ring contactlessly in relation to the bearing seat, in a locking and rotationally fixed manner.

Rejection Under 35 U.S.C. § 112

Claims 1-10 had been rejected under 35 USC 112, second paragraph, because claim 1 used a forward slash.

Claim 1 has been amended herein and is now deemed definite.

Rejection Under 35 U.S.C. § 102(b)

Claims 1, 2, 5-8 and 10 are rejected under 35 U.S.C. §102(b) as anticipated by Mori, *et al.* (U.S. 4,557,679).

Applicants respectfully disagree with the rejection of claims 1-2, 5-8 and 10 and note that Mori, *et al.* do NOT disclose a second bearing ring **coupled** with a first bearing ring, **contactlessly** in relation to the bearing seat, in a **locking and rotationally fixed manner**. The connecting element (21-25) that is disclosed in Mori, *et al.* is for connecting the rolling thrust bearing to the casing member and **not** to couple the rolling thrust bearing to the radial bearing.

Mori, *et al.* discloses a connecting element for the rolling thrust bearing only, including a bearing mounting unit (21) so as to fix the outer races (7o) of the rolling thrust bearing (7) to the casing member (3m). (*see*, column 6, lines 49-51). The rolling thrust bearing mounting unit (21) includes a housing (22) for holding the two outer races (7o)

together. It also includes a flexible cylinder (23) fixed at one end (23a) of the housing (22) by a plurality of bolts (24a), and a mounting plate (25) fixed to the other end (23b) of the cylinder (23) by a plurality of bolts (24b), and fixed to the casing member (3m) over a spacer (15) by bolts (26). (*see*, column 6, lines 51-60). The rolling thrust bearing mounting unit of Mori, *et al.* includes a collar (22a) at a right hand end of the housing (22), which defines a reference surface for the axial position of the inner race (7i) held therein, and which acts as a stopper for an axial movement of the outer races (7o). (*see*, column 6, lines 60-64). Mori, *et al.* further discloses that the cylinder (23) includes a thin cylindrical wall which is formed so that one end (23a) thereof can be displaced in a radial direction but substantially not in an axial direction and that clearances are provided (i) between the outer surface of the housing (22) and the inner surface of a portion of the casing member (3m) which holds the rolling thrust bearing (7 or 6), and (ii) between an axial end surface of the housing (13) and that of a snap ring (11). (*see*, column 6, lines 67-68; column 7, lines 1-6). The above sets forth how the rolling thrust bearings are fixed to the housing unit via bolts (13), screws (13b, 13c) and/or nuts (13d).

Moreover, Mori, *et al.* contains only one statement regarding the radial bearing (5c): it is fixed in the casing member (3m) by, for example, a snap ring (20). (*see*, column 6, lines 44-46) No disclosure is given on how to couple the rolling thrust bearing to the radial bearing, only on how to couple or fix each separate bearing to the casing member.

Applicants' bearing ring assembly includes a bearing ring of the radial support and a bearing ring of the axial support which are in contact with each other axially, at least in certain portions, or lie axially opposite, separated from each other by an axial gap. (*see*, Paragraph 0010 of the Application). The bearing rings are thus coupled in a locking manner with each other in the direction of rotation about the axis of rotation at the portion(s) at which they lie axially against each other. (Paragraph 0010) The supports may be separated from each other by disks or other machine elements with the bearing rings engaging over these machine elements, or the axial support may be arranged in the bearing assembly directly next to the radial support. (Paragraph 0010) Indeed, the outer rings and/or the inner rings of the supports may be in contact, for example: (i) at their end faces,

(ii) at least axially opposite each other, (iii) directly in engagement with each other in a locking manner or connected to each other in a locking manner by means of a connecting element, or (iv) with an axial disk of an axial support configured as an axial rolling bearing so as to couple the rings. (Paragraph 0010) Moreover, the bearing ring of the radial support may be held in a rotationally fixed manner in relation to the bearing seat only by a locking means with the radial support. (*see*, Paragraph 0012 of the Application). The bearing ring of the axial support is thus arranged contactlessly in relation to the bearing seat, with which the bearing ring of the radial support is coupled against relative contortion. (Paragraph 0012).

In contrast, Mori, *et al.* is silent on a contactlessly coupling of the rolling thrust bearing to the radial bearing in its bearing ring assembly. Therefore, Mori, *et al.* does not anticipate Applicants' bearing assembly which includes a second bearing ring (radially free axial support) **coupled** with a first bearing ring (axially free radial support), **contactlessly** in relation to the bearing seat, in a locking and rotationally fixed manner. No such coupling or connecting element is disclosed in Mori, *et al.*

Inasmuch as Mori, *et al.* do not disclose each and every element of Applicants' bearing assembly, Applicants kindly ask that the rejection to claim 1 be withdrawn. Applicants further respectfully request that the rejection to claims 2, 5-8 and 10 be withdrawn as the claims are dependent on claim 1, which itself it not anticipated by Mori, *et al.* and thus the dependent claims are not correspondingly anticipated.

Conclusion

In view of the foregoing, it is submitted that the Application is in condition for allowance and such action is respectfully requested. Should any fees or extension of time be necessary in order to maintain this Application in pending condition, appropriate requests are hereby made and authorization is given to Account Number 02-2275.

Respectfully submitted,
LUCAS & MERCANTI, LLP

By:



Donald C. Lucas, Esq., Reg. No. 31,275
Attorney for Applicant(s)
475 Park Avenue South, 15th Floor
New York, NY 10016
Telephone (212) 661-8000
Fax (212) 661-8002